WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Friday, May 07, 2004

Hide?	Set Name	Query	Hit Count
	DB=PGPB,USPT; PLUR=YES; OP=OR		
☐	L6	ray$1 near6 subdivid$3 and trac$3 and recursive	6
☐	L5	L4 and cast$3 and trac$3	3
☐	L4	subdivid$ near5 ray$ same (group or bundle)	21
☐	L3	subdivid$ near5 ray$ same (group or bundle) and recursive same trac$3	0
☐	L2	subdivid$ near5 ray$ same (group or bundle) and recursive same trac$3 and cast$3	0
☐	L1	subdivid$ near5 ray$ same (group or bundle) and recursive same trac$3 and cast$3 and test	0

END OF SEARCH HISTORY

Terms used **subdivision cast ray tracing ray bundle** Found **217** of **132,857**

Sort results by relevance

Display results expanded form

Save results to a Binder

Search Tips

Open results in a new window

Try an Advanced Search

Try this search in The ACM Guide

Results 1 - 20 of 200 Result page: **1** 2 3 4 5 6 7 8 9 10 next

Best 200 shown Relevance scale

1 Volume rendering: Dependency graph scheduling in a volumetric ray tracing architecture

S. Frank, A. Kaufman

September 2002 **Proceedings of the ACM SIGGRAPH/EUROGRAPHICS conference on Graphics hardware**

Full text available: pdf(220.01 KB) Additional Information: full citation, abstract, references, index terms

We propose a volumetric ray tracing PCI board which uses FPGA components and on chip memory. In a multiboard system a super volume (i.e., one that is larger than on-board memory) can be either distributed or shared. In a single board system it must be fetched from main memory as needed. In any case the volume is sub-divided into cubic cells and process scheduling has a major impact on the rendering time. There is not generally a scheduling order which would allow each sub-volume to be read from ...

Keywords: inter-frame coherence, load balancing, super volume, volumetric ray tracing

2 Ray tracing vs. scan conversion: SaarCOR: a hardware architecture for ray tracing

Jörg Schmittler, Ingo Wald, Philipp Slusallek

September 2002 **Proceedings of the ACM SIGGRAPH/EUROGRAPHICS conference on Graphics hardware**

Full text available: pdf(5.23 MB) Additional Information: full citation, abstract, references, citings, index terms

The ray tracing algorithmis well-known for its ability to generate high-quality images and its flexibility to support advanced rendering and lighting effects. Interactive ray tracing has been shown to work well on clusters of PCs and supercomputers but direct hardware support for ray tracing has been difficult to implement.In this paper, we present a new, scalable, modular, and highly efficient hardware architecture for real-time ray tracing. It achieves high performance with extremely low memor ...

3 Interactive ray tracing

Steven Parker, William Martin, Peter-Pike J. Sloan, Peter Shirley, Brian Smits, Charles Hansen

April 1999 **Proceedings of the 1999 symposium on Interactive 3D graphics**

Full text available: pdf(954.25 KB) Additional Information: full citation, references, citings, index terms

Keywords: parallel systems, ray tracing, shading models

4 The holodeck ray cache: an interactive rendering system for global illumination in nondiffuse environments

Gregory Ward, Maryann Simmons
October 1999 **ACM Transactions on Graphics (TOG)**, Volume 18 Issue 4

Full text available: pdf(935.74 KB) Additional Information: full citation, abstract, references, citings, index terms

We present a new method for rendering complex environments using interactive, progressive, view-independent, parallel ray tracing. A four-dimensional holodeck data structure serves as a rendering target and caching mechanism for interactive walk-throughs of nondiffuse environments with full global illumination. Ray sample density varies locally according to need, and on-demand ray computation is supported in a parallel implementation. The holodeck file is stored on disk and ...

Keywords: illumination, image reconstruction, mesh generation, ray tracing, rendering system, virtual reality

5 Beam tracing polygonal objects

Paul S. Heckbert, Pat Hanrahan
January 1984 **ACM SIGGRAPH Computer Graphics , Proceedings of the 11th annual conference on Computer graphics and interactive techniques**, Volume 18 Issue 3

Full text available: pdf(929.75 KB) Additional Information: full citation, abstract, references, citings, index terms

Ray tracing has produced some of the most realistic computer generated pictures to date. They contain surface texturing, local shading, shadows, reflections and refractions. The major disadvantage of ray tracing results from its point-sampling approach. Because calculation proceeds ab initio at each pixel it is very CPU intensive and may contain noticeable aliasing artifacts. It is difficult to take advantage of spatial coherence because the shapes of reflections and refrac ...

Keywords: Coherence, Object space, Polygon, Ray tracing, Refraction

6 Light-water interaction using backward beam tracing

Mark Watt
September 1990 **ACM SIGGRAPH Computer Graphics , Proceedings of the 17th annual conference on Computer graphics and interactive techniques**, Volume 24 Issue 4

Full text available: pdf(3.23 MB) Additional Information: full citation, references, citings, index terms

7 Texture mapping 3D models of real-world scenes

Frederick M. Weinhaus, Venkat Devarajan
December 1997 **ACM Computing Surveys (CSUR)**, Volume 29 Issue 4

Full text available: pdf(1.98 MB) Additional Information: full citation, abstract, references, index terms, review

Texture mapping has become a popular tool in the computer graphics industry in the last few years because it is an easy way to achieve a high degree of realism in computer-generated imagery with very little effort. Over the last decade, texture-mapping techniques

have advanced to the point where it is possible to generate real-time perspective simulations of real-world areas by texture mapping every object surface with texture from photographic images of these real-world areas. The techniqu ...

Keywords: anti-aliasing, height field, homogeneous coordinates, image perspective transformation, image warping, multiresolution data, perspective projection, polygons, ray tracing, real-time scene generation, rectification, registration, texture mapping, visual simulators, voxels

8 Radiance interpolants for accelerated bounded-error ray tracing
Kavita Bala, Julie Dorsey, Seth Teller
July 1999 **ACM Transactions on Graphics (TOG)**, Volume 18 Issue 3

Full text available: pdf(888.58 KB) Additional Information: full citation, abstract, references, citings, index terms, review

Ray tracers, which sample radiance, are usually regarded as offline rendering algorithms that are too slow for interactive use. In this article we present a system that exploits object-space, ray-space, image-space, and temporal coherence to accelerate ray tracing. Our system uses per-surface interpolants to approximate radiance both interactive and batch ray tracers. Our approach explicity decouples the two primary operations of a ray tracer—shading and visibility de ...

Keywords: 4D interpolation, approximation, data structures, error bounds, interactive, interval arithmetic, radiance, rendering, rendering systems, visibility

9 Efficient ray tracing of volume data
Marc Levoy
July 1990 **ACM Transactions on Graphics (TOG)**, Volume 9 Issue 3

Full text available: pdf(3.30 MB) Additional Information: full citation, abstract, references, citings, index terms, review

Volume rendering is a technique for visualizing sampled scalar or vector fields of three spatial dimensions without fitting geometric primitives to the data. A subset of these techniques generates images by computing 2-D projections of a colored semitransparent volume, where the color and opacity at each point are derived from the data using local operators. Since all voxels participate in the generation of each image, rendering time grows linearly with the size of the data ...

10 Adaptive radiosity textures for bidirectional ray tracing
Paul S. Heckbert
September 1990 **ACM SIGGRAPH Computer Graphics , Proceedings of the 17th annual conference on Computer graphics and interactive techniques**, Volume 24 Issue 4

Full text available: pdf(2.90 MB) Additional Information: full citation, references, citings, index terms

11 Ray tracing trimmed rational surface patches
Tomoyuki Nishita, Thomas W. Sederberg, Masanori Kakimoto
September 1990 **ACM SIGGRAPH Computer Graphics , Proceedings of the 17th annual conference on Computer graphics and interactive techniques**, Volume 24 Issue 4

Full text available: pdf(3.79 MB) Additional Information: full citation, references, citings, index terms

12 Multiprocessor experiments for high-speed ray tracing
Severin Gaudet, Richard Hobson, Pradeep Chilka, Thomas Calvert
July 1988 **ACM Transactions on Graphics (TOG)**, Volume 7 Issue 3

Full text available: pdf(2.82 MB) Additional Information: full citation, abstract, references, index terms

New single- and multiprocessor models for ray tracing are presented. Important features are (1) the use of custom VLSI building blocks, (2) the use of a modified hierarchical data-structure-based ray tracing algorithm with three disjoint data sets, and (3) scene access through adaptive information broadcasting. A modular design is presented that permits incremental performance enhancement up to two orders of magnitude over conventional minicomputers or workstations. Ray tracing is a surpris ...

13 Fast ray tracing by ray classification
James Arvo, David Kirk
August 1987 **ACM SIGGRAPH Computer Graphics , Proceedings of the 14th annual conference on Computer graphics and interactive techniques**, Volume 21 Issue 4

Full text available: pdf(1.20 MB) Additional Information: full citation, references, citings, index terms

14 Predicting RF coverage in large environments using ray-beam tracing and partitioning tree represented geometry
A. Rajkumar, B. F. Naylor, F. Feisullin, L. Rogers
June 1996 **Wireless Networks**, Volume 2 Issue 2

Full text available: pdf(1.03 MB) Additional Information: full citation, abstract, references, citings, index terms

We present a system for efficient prediction of RF power distribution in site specific environments using a variation of ray tracing, which we called ray-beam tracing. The simulation results were validated against measured data for a number of large environments with good statistical correlation between the two. We represent geometric environments in full 3D which facilitates rooftop deployment along with any other 3D locations. We use broadcast mode of propagation, whose cost increases mor ...

15 Ray tracing generalized cylinders
Willem F. Bronsvoort, Fopke Klok
October 1985 **ACM Transactions on Graphics (TOG)**, Volume 4 Issue 4

Full text available: pdf(1.21 MB) Additional Information: full citation, abstract, references, citings, index terms, review

An algorithm is presented for ray tracing generalized cylinders, that is, objects defined by sweeping a two-dimensional contour along a three-dimensional trajectory. The contour can be any 'well-behaved' curve in the sense that it is continuous, and that the points where the tangent is horizontal or vertical can be determined, the trajectory can be any spline curve. First a definition is given of generalized cylinders in terms of the Frenet frame of the trajectory. Then the main problem in ...

16 A data distributed, parallel algorithm for ray-traced volume rendering
Kwan Liu Ma, James S. Painter, Charles D. Hansen, Michael F. Krogh
November 1993 **Proceedings of the 1993 symposium on Parallel rendering**

Full text available: pdf(2.85 MB) Additional Information: full citation, references, citings, index terms

Keywords: massively parallel processing, network computing, scientific visualization, volume rendering

17 An efficient parallel ray tracing scheme for distributed memory parallel computers
Wilfrid Lefer
November 1993 **Proceedings of the 1993 symposium on Parallel rendering**
Full text available: pdf(460.13 KB) Additional Information: full citation, references, citings, index terms

Keywords: DMPC, image synthesis, load-balancing, parallel ray-tracing

18 New Techniques for Ray Tracing Procedurally Defined Objects
James T. Kajiya
July 1983 **ACM Transactions on Graphics (TOG)**, Volume 2 Issue 3
Full text available: pdf(1.18 MB) Additional Information: full citation, references, citings, index terms

19 New techniques for ray tracing procedurally defined objects
James T. Kajiya
July 1983 **ACM SIGGRAPH Computer Graphics , Proceedings of the 10th annual conference on Computer graphics and interactive techniques**, Volume 17 Issue 3
Full text available: pdf(1.07 MB) Additional Information: full citation, abstract, references, citings, index terms

We present new algorithms for efficient ray tracing of three procedurally defined objects: fractal surfaces, prisms, and surfaces of revolution. The fractal surface algorithm performs recursive subdivision adaptively. Subsurfaces which cannot intersect a given ray are culled from further consideration. The prism algorithm transforms the three dimensional ray-surface intersection problem into a two dimensional ray-curve intersection problem, which is solved by the method of strip trees. The ...

Keywords: Computer graphics, Fractal surfaces, Procedural modelling, Raster graphics, Ray tracing, Stochastic models, Strip trees, Surfaces of revolution

20 Ray tracing parametric patches
James T. Kajiya
July 1982 **ACM SIGGRAPH Computer Graphics , Proceedings of the 9th annual conference on Computer graphics and interactive techniques**, Volume 16 Issue 3
Full text available: pdf(655.68 KB) Additional Information: full citation, abstract, references, citings, index terms

This paper describes an algorithm that uses ray tracing techniques to display bivariate polynomial surface patches. A new intersection algorithm is developed which uses ideas from algebraic geometry to obtain a numerical procedure for finding the intersection of a ray and a patch without subdivision. The algorithm may use complex coordinates for the (u, v)-parameters of the patches. The choice of these coordinates makes the computations more uniform, so that there are fewer ...

Keywords: Computer graphics, Parametric patches, Raster graphics, Ray tracing

Results 1 - 20 of 200 Result page: **1** 2 3 4 5 6 7 8 9 10 next

Your search matched **9** of **1034809** documents.
A maximum of **500** results are displayed, **15** to a page, sorted by **Relevance Descending** order.

Refine This Search:
You may refine your search by editing the current search expression or enteri new one in the text box.

rays and subdivision Search

☐ Check to search within this result set

Results Key:
JNL = Journal or Magazine **CNF** = Conference **STD** = Standard

---

1 **Breadth-first ray tracing utilizing uniform spatial subdivision**
Nakamaru, K.; Ohno, Y.;
Visualization and Computer Graphics, IEEE Transactions on , Volume: 3 , Issu 4 , Oct.-Dec. 1997
Pages:316 - 328

[Abstract] [PDF Full-Text (944 KB)] IEEE JNL

---

2 **A visual simulation of ray propagation for wireless communication systems**
Makino, M.; Ohsaki, A.; Shinoda, S.; Shirai, H.;
TENCON 99. Proceedings of the IEEE Region 10 Conference , Volume: 1 , 15- Sept. 1999
Pages:534 - 537 vol.1

[Abstract] [PDF Full-Text (272 KB)] IEEE CNF

---

3 **Quench analysis of a superconducting magnet with 98 coils connect series**
Wallen, E.;
Applied Superconductivity, IEEE Transactions on , Volume: 13 , Issue: 4 , De 2003
Pages:3845 - 3855

[Abstract] [PDF Full-Text (480 KB)] IEEE JNL

---

4 **The Voxar project [parallel ray-tracing]**
Pitot, P.;
Computer Graphics and Applications, IEEE , Volume: 13 , Issue: 1 , Jan. 199:
Pages:27 - 33

[Abstract] [PDF Full-Text (784 KB)] IEEE JNL

5 **A visibility determination algorithm for interactive virtual endoscop**
Hietala, R.; Oikarinen, J.;
Visualization 2000. Proceedings , 8-13 Oct. 2000
Pages:29 - 36

[Abstract] [PDF Full-Text (808 KB)] IEEE CNF

6 **Improvement of the modulation factor for a Compton scattering typ polarimeter using subdivided scintillators**
Gunji, S.; Kudo, E.; Sakurai, H.;
Nuclear Science Symposium, 1997. IEEE , 9-15 Nov. 1997
Pages:610 - 613 vol.1

[Abstract] [PDF Full-Text (344 KB)] IEEE CNF

7 **Implementation of a propagation model for indoor environments fo GSM**
Domingues, A.; Correia, L.M.;
Vehicular Technology Conference, 1999. VTC 1999 - Fall. IEEE VTS 50th , Vol 4 , 19-22 Sept. 1999
Pages:2318 - 2322 vol.4

[Abstract] [PDF Full-Text (488 KB)] IEEE CNF

8 **Object and ray coherence in the optimization of the ray tracing algo**
Gonzalez, P.; Gisbert, F.;
Computer Graphics International, 1998. Proceedings , 22-26 June 1998
Pages:264 - 267

[Abstract] [PDF Full-Text (756 KB)] IEEE CNF

9 **A fast ray tracing casting algorithm using adaptive isotriangular subdivision**
Shu, R.; Liu, A.;
Visualization, 1991. Visualization '91, Proceedings., IEEE Conference on , 22-Oct. 1991
Pages:232 - 238, 426

[Abstract] [PDF Full-Text (480 KB)] IEEE CNF

WEST Search History

10/086620

DATE: Friday, November 21, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT; PLUR=YES; OP=OR			
L18	l2 and ALU and flag	1	L18
L17	L15 and buffer	5	L17
L16	L15 and buffer and ALU	0	L16
L15	l2 and occlusion and test	9	L15
L14	l2 and occlusion same test	0	L14
L13	L11 and triangle and rectangular	2	L13
L12	L11 and occlusion	0	L12
L11	L5 and (depth or z)	10	L11
L10	L5 and positive and negative	2	L10
L9	L5 and boolean	0	L9
L8	L5 and proximity and boolean	0	L8
L7	L5 and proximity	4	L7
L6	L5 and proximity same test	0	L6
L5	L3 and travers$3 and (subdivid$3 or divid$3) and distance	10	L5
L4	L3 and travers$3 and (subdivid$3 or divid$3)	12	L4
L3	L2 and position and direction and size	49	L3
L2	voxel same ray same trac$3	72	L2
DB=PGPB; PLUR=YES; OP=OR			
L1	recursive same ray same casting	10	L1

END OF SEARCH HISTORY